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# Yields of the Field Experiments 1966

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## 66/S/SA/A/10 Saxmundham - Rotation 1

### Rothamsted Research

Rothamsted Research (1967) *66/S/SA/A/10 Saxmundham - Rotation 1* ; Yields Of The Field Experiments 1966, pp 33 - 36 - DOI: <https://doi.org/10.23637/ERADOC-1-158>

66/A/10.1

SAXMUNDEHAM

ROTATION I 1966

(SA)

For history, treatments, rotations etc. see Rothamsted Report for 1964, pp. 228 - 232, and for previous years' results see 'Results' 64/A/10 and 65/A/10.

The rotation is now sugar beet, barley, beans, winter wheat.

Area of each plot: 0.0546. Area harvested: Sugar beet - 0.0107, barley - 0.0234, spring beans - 0.0421, winter wheat - 0.0275.  
Area of each sub-plot: 0.0074. Area harvested: 0.0025.

Treatments: New treatments were applied in 1966 as follows:-

Former plot number	Treatment 1899 - 1965*	Treatment from 1966
1	D	D
2	B	B
3	N	N2P2
4	P	N1P1
5	K	N1P2K
6	-	N1P2
7	PK	N1P1K
8	NK	N2P2K
9	NP	N2P1
10	NPK	N2P1K

\* for details see 'Results' 64/A/10.

Symbols (1966) D: 12 tons dung  
B: 4 cwt bonemeal  
N1, N2: 0.5, 1.0 cwt N to wheat, sugar beet and barley.  
C, 0.5 cwt N to beans (all as 'Nitro-Chalk')  
P1, P2: 0.4, 0.8 cwt P2O5 as superphosphate  
K: 1 cwt K2O as muriate of potash.

A small area at the South end of each plot continues to be treated as in 1899 - 1965, except that (i) N is now applied as 'Nitro-Chalk' (ii) wheat 1966 received treatments as on the main plots. Yields of these sub plots were taken in sugar beet only.

Cultivations, etc.:

Sugar beet: Dung applied and ploughed in: Oct 11, 1965. Ploughed: Oct 12. NPK fertilisers applied: Mar 18, 1966. Bonemeal applied: Mar 22. Seed drilled: Mar 30. Singled: May 23.

66/A/10.2

Sprayed with demeton-s-methyl (Metasystox at 17.3 fluid oz in 36 gals): June 15. Lifted: Oct 10. Variety: Klein E.  
Barley: Ploughed (excluding dung plot): Oct 27, 1965. Dung applied: Oct 29. Dung ploughed in: Oct 30. Bonemeal applied: Mar 14, 1966. Fertilisers applied: Mar 15. Seed drilled at 195 lb: Mar 17. Sprayed with Dicamba, MCPA, mecoprop and TBA (Cambilene at 4 pints in 20 gals): May 13. Combine harvested: Aug 17. Variety: Proctor.  
Spring beans: Dung applied: Oct 29, 1965. Ploughed in: Oct 30. Ploughed: Nov 3. Bonemeal applied: Mar 14, 1966. Fertilisers applied: Mar 15. Seed drilled at 110 lb: Mar 16. Sprayed with simazine at 1.2 lb in 23 gals: Mar 25. Sprayed with demeton-s-methyl (Metasystox at 17.3 fluid oz in 36 gals): June 15. Combine harvested: Aug 24. Variety: Spring Tick.  
Winter wheat: Ploughing begun, stopped by rain: Sept 8, 1965. Dung applied and ploughed in (the remainder was not reploughed): Sept 21. PK fertilisers applied: Sept 27. Bonemeal applied, seed drilled: Oct 5. 'Nitro-Chalk' applied: Mar 26, 1966. Sprayed with Dicamba, MCPA, mecoprop and TBA (Cambilene at 4 pints in 20 gals): Apr 29. Combine harvested: Aug 17. Variety: Cappelle.

66/4/10.3

SUMMARY OF RESULTS

NEW TREATMENTS

Treatment 1899 - 1965	Treatment from 1966	Roots	SUGAR BEET Sugar Total % sugar Tops	Plant number	BARLEY Grain Straw	SPRING BEANS Grain	WINTER WHEAT Grain Straw
D	D	13.50	44.6	32.6	34.2	24.3	18.7
B	B	4.67	15.0	22.1	11.2	7.3	9.9
N	N2P2	13.71	47.5	29.2	29.8	9.1	27.1
P	N1P1	9.60	33.0	28.1	25.4	8.4	19.8
K	N1P2K	7.29	25.0	29.4	19.5	7.5	16.7
-	N1P2	9.27	32.1	30.7	28.1	8.8	17.8
PK	N1P1K	10.43	36.7	32.8	28.0	16.8	20.9
NK	N2P2K	10.10	35.2	30.8	32.4	15.2	28.3
NP	N2P1	11.34	39.8	34.4	31.6	14.3	28.9
NPK	N2P1K	10.06	35.7	35.4	29.1	15.1	32.2
Mean		10.00	34.5	30.5	26.9	12.7	22.0
Mean D.M.%:		17.2	5.11	30.5	16.2	83.7	14.4
					83.5	83.7	79.1



66/A/10.4

OLD TREATMENTS

Plot no.	Treatment 1899 - 1966	SUGAR BEET				Plant number
		Roots	Sugar %	Total sugar	Tops	
1	D	11.07	16.2	35.9	5.94	29.4
2	B	5.40	16.1	17.4	3.06	26.2
3	N	4.41	16.7	14.7	3.24	23.8
4	P	4.95	16.2	16.1	2.70	29.8
5	K	2.07	16.2	6.7	1.98	26.2
6	-	3.51	16.4	11.5	2.52	35.9
7	PK	7.29	16.9	24.6	3.78	35.9
8	NK	3.69	16.7	12.3	3.42	31.1
9	NP	12.69	16.9	43.0	5.22	30.7
10	NPK	11.16	17.3	38.6	5.58	34.3
Mean		6.63	16.6	22.1	3.75	30.3